required, if the body is made from a casting, it is of advantage to have small projecting lugs for bearing surfaces when laying out and planing. While jigs are most commonly provided with four feet on each side, in some cases It is sufficient to provide the tool with only three feet, but care should be taken in either case that all bushings and places where pressure will be applied to the tool are placed *inside* of the geometrical figure obtained by connecting, by lines, the points of location for the feet.

While it may seem that three feet are preferable to use, because the jig will then always obtain a bearing on all the three feet, which it would not with four feet, if the table of the machine were not absolutely plane, it is not quite safe to use the smaller number of supports, because a chip or some other object is liable to come under one foot and throw the jig and the piece out of line, without this being noticed by the operator. If the same thing happens to a jig with four feet, it will rock anil Invariably cause the operator to notice the defect. If the table in out of true, this defect, too, will be noticed for the same reason.

Jig feet are generally cast solid with the jig frame. When the jig frame is made from machine steel, and sometimes in the case of cast-iron jigs, detachable feet are used.

Materials for Jigs. — Opinions differ as to the relative merits of cast iron and steel as materials from which to construct the jig and fixture bodies. The decision on this point should depend to a great extent upon the usage to which the fixture is to be put and the character of the work which it is to handle. For smalt and medium sized work, such as typewriter, machine, gun, adding machine, cash register, phonograph, and similar parts,, the steel jig offers decided advantages, but for work, such as that encountered in automobile, engines and machine tool fixtures, the cast-iron jig is undoubtedly the

cheaper and more
. advisable to use. The steel jig should be left soft in order that
at any future time additional holes may be added, or the
bushings changed as required. With a cast-iron jig this adding
of .bushings is a difficult matter, as the frame Is usually
and "spot finished" at the point where the are located,
and it is very difficult to build up on the Jig in order to